

Paisley

Lake Abert

Valley Falls

Chandler  
State Wayside

# Overview of Lake Abert

House Committee on Agriculture, Land Use, and Water  
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# Geography

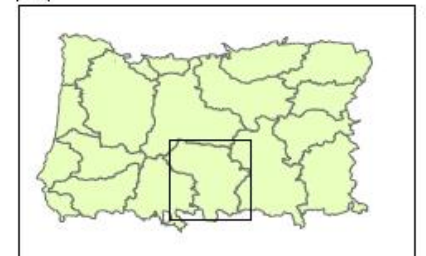
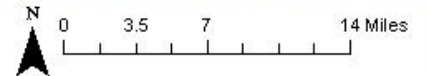
- Lake County
- North of Lakeview
- Communities:
  - Paisley
  - Valley Falls



Vicinity of Abert Lake, Oregon

## Legend

- ▲ Cities
- Rivers
- Lakes
- ▨ Wetlands





# Watershed Characteristics

Paisley

Lake Abert

Valley Falls

~660,000 acres:

- ~30% Forestland
- ~50% Rangeland / Shrubland
- ~10% Grass/Hay/Pasture
- ~10% Water/Wetlands/Other

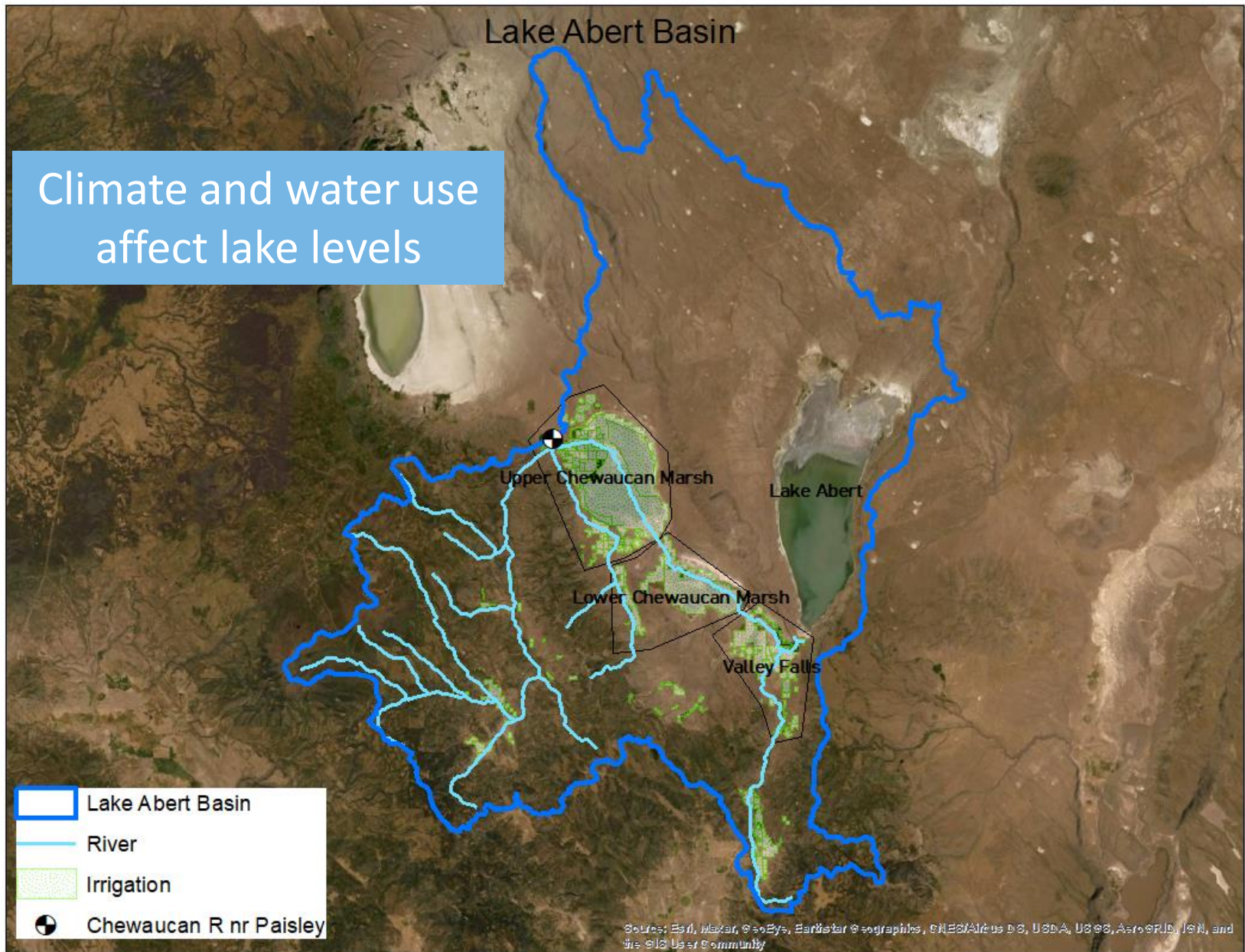
(2006 USDA NRCS Data: [Link](#))

2016 Image from GoogleEarth



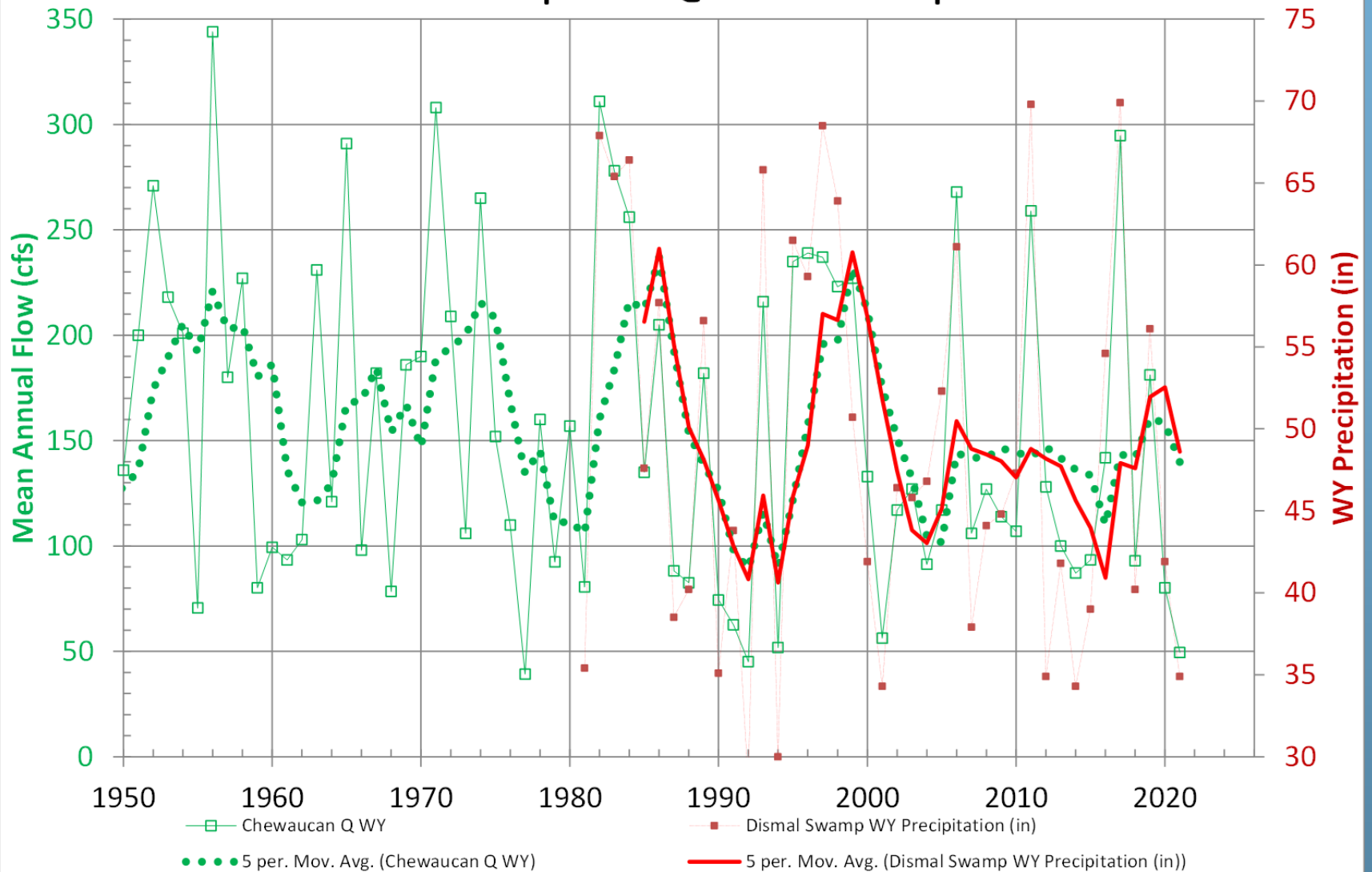
# Basin Hydrology

Climate and water use  
affect lake levels



# Precipitation and Streamflow

Hydro-Climate Trend Chewaucan Streamflow  
and Water Year Precipitation @ Dismal Swamp SNOTEL Site

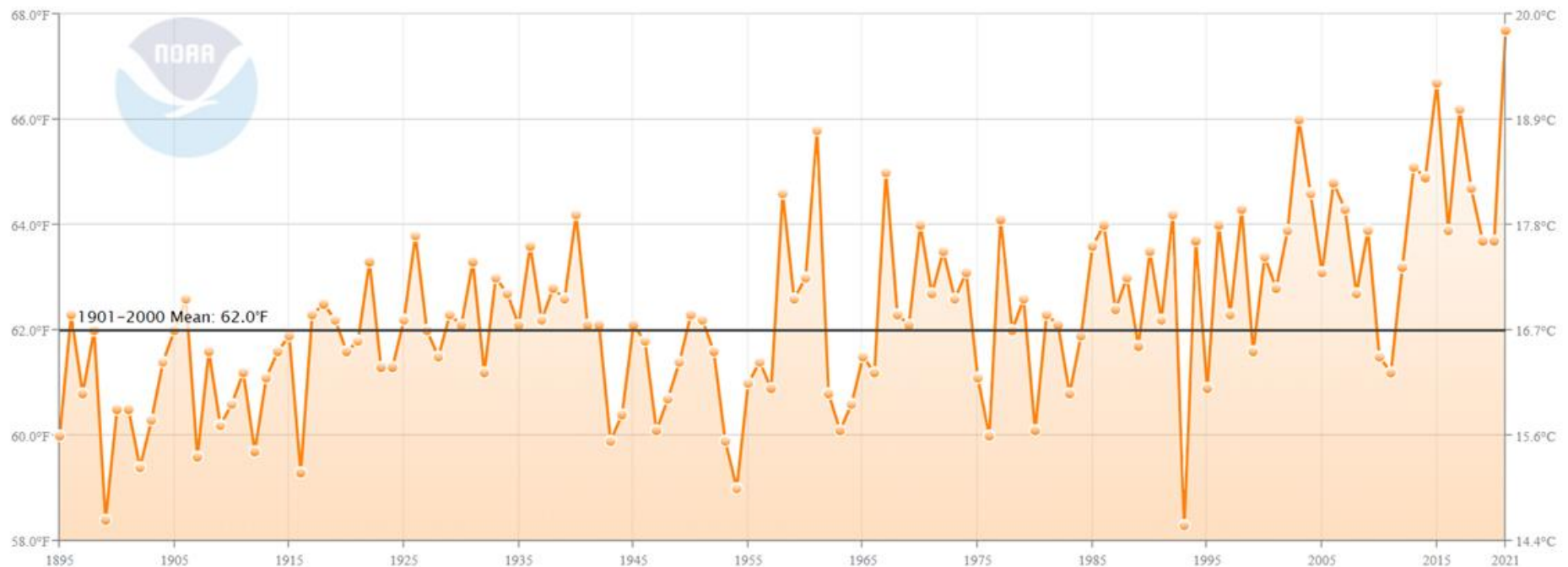


# Evaporation and Transpiration

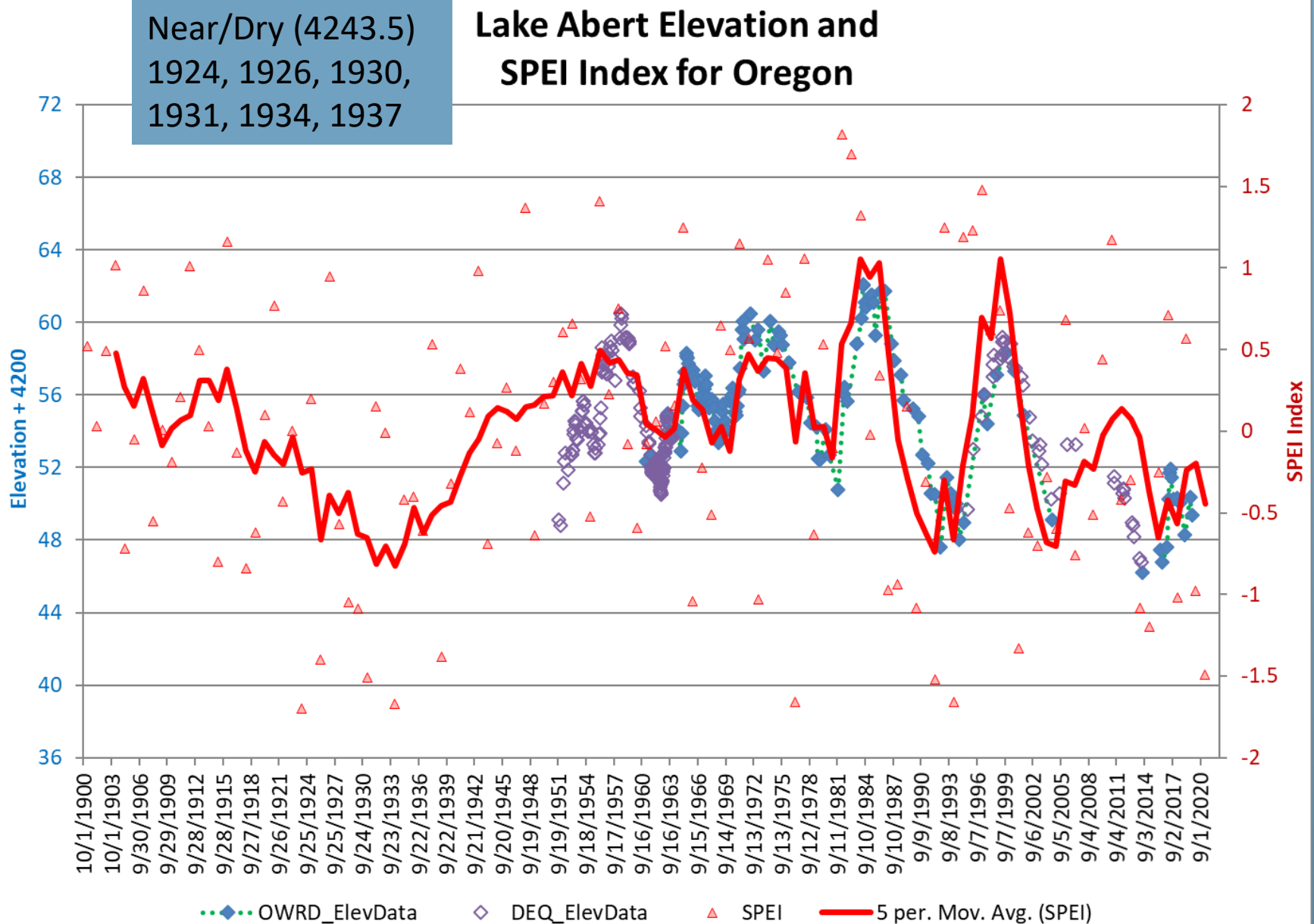
Open water evaporation and vegetation/crop transpiration removes water from the system

- Drivers of evapotranspiration: temperature and wind speed

Oregon Average Temperature  
June–August



# Lake Abert and Climate





# Ecology

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Internationally recognized  
shorebird migration habitat

Important stop on the bird  
migration route known as the  
Pacific flyway

Brine shrimp and alkali fly  
food source is the draw for  
shorebirds





# Associated Habitats

## Chewaucan River

- Functional riverine habitat above Paisley
- Highly altered and channelized below Paisley

## Upper & Lower Chewaucan Marshes

- Critical spring migration habitat
- Supported by traditional flood irrigation



# River's End Ranch Project

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Existing dam/reservoir 1927

1993 Project: Rebuilt and added 3 feet useable elevation

ODFW Objective: Create 300 acres emergent wetland habitat

Disturbance of archaeological resources during dam construction





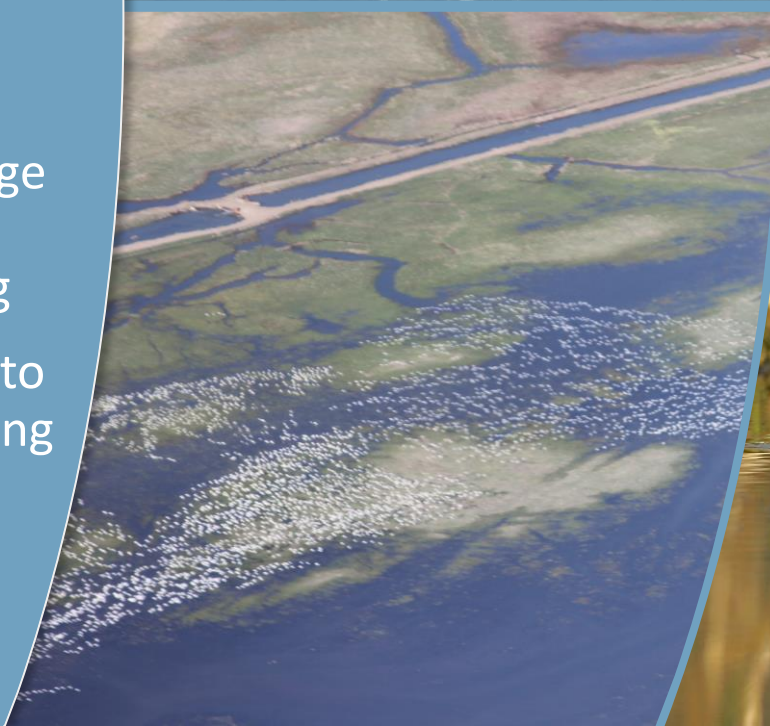
# Levers & Trade Offs

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Water management actions can affect which species and life history stage benefitted

Water management practices to encourage marsh habitat for breeding and nesting

Water management to support critical feeding area of the lake





# Levers & Trade Offs

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Water management actions can impact which species benefitted

Water to the lake to provide critical feeding area for multiple species of birds

Water maintained in the reservoir to support deep water rearing for red band trout





# Moving to Solutions

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- Limited amount of water in the basin
- Take a system wide view when discussing solutions
- Cultural impacts of changes in water management
- Ecological and economic needs and benefits across the basin
- Data and solutions need to be developed with an understanding of various interests and needs



# Recap & Next Steps

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- Unique and valuable natural resource
- Complex considerations
- Address with a collaborative multi- governmental / stakeholder process





Image from GoogleEarth

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# Questions?